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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,181	07/30/2003	Richard Victor Kisley	SJO920030020US1	9216
45216 7590 12/29/2006 KUNZLER & ASSOCIATES 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111			EXAMINER PANNALA, SATHYANARAYA R	
			ART UNIT 2164	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			12/29/2006	
			DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/630,181

Applicant(s)

KISLEY, RICHARD VICTOR

Examiner

Sathyanarayan Pannala

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/30/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Application No. 10/630181 filed on 7/30/2003 has been examined. In this Office Action, claims 1-30 are pending.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 7/30/2003 is in compliance with the provisions of 37 CFR 1.97 and has been considered by the examiner.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
4. Claims 21-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims with "computer storage medium" are not supportive from the specification and it is stated as a storage module.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-13 and 18-29 are rejected under 35 U.S.C. § 101, because none of the claims are directed to statutory subject matter. Independent claims 1, 12 and 14 merely claiming nonfunctional descriptive material, i.e., abstract ideas. Even when a claim that recites a computer that solely calculates a mathematical formula or a computer disk that solely stores a mathematical formula is not directed to the type of statutory subject matter eligible for patent protection. The claims are not producing useful, concrete and tangible results. See *Diehr*, 450 U.S. at 186 and *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972).

7. Claim 1-30 is rejected under 35 U.S.C. § 101, because claims are directed to software and data structure per se. Independent claims 1, 12, 14, 16, 18 and 21 are claiming software per se even though the preamble stated, as apparatus, system or method and 30 are claiming a data structure per se and they have functional descriptive material consisting of data structures and computer programs, which impart functionality when employed as a computer component. As such, the claims are not limited to statutory subject matter and are therefore non-statutory.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Federwisch et al. (US Patent 7,039,663) hereinafter Federwisch.

10. As per independent claims 1, 14, 16, 18, 21, Federwisch teaches system and method for generating an asynchronous transfer of data between a source files system and a replicated destination file system (col. 5, lines 60-63) and the changes sent from the source file system to the destination file system relate to a qtree sub-organization of a volume on the source (col. 6, lines 32-34). Further, Federwisch teaches the claimed, a replication source comprising a hierarchically-indexed data store (col. 6, lines 32-34). Federwisch teaches the claimed, tracking module configured to track file regions that have changed since a first point-in-time image replication instance (Fig. 4, 6, col. 11,

lines 11-28 and col. 12, lines 1-11). Federwisch teaches the claimed, a replication module configured to communicate data contained within changed file regions in response to a second point-in-time image replication instance (Fig. 4, col. 11, lines 1-8).

11. As per dependent claims 2, 15, 17, 19, 22, Federwisch teaches the claimed, a replication target configured to receive the data contained within the changed file regions from the replication source, write the data within corresponding files regions on the replication target, and initiate a point-in-time image replication operation configured to synchronize the replication target with the replication source (Fig. 2, col. 4, lines 27-33).

12. As per dependent claim 3, Federwisch teaches the claimed, configured to communicate the data contained within the changed file regions in an order that is independent of a change order (Fig. 5, col. 12, lines 7-11).

13. As per dependent claims 4-5, 24, Federwisch teaches the claimed, configured to conduct replication operations as directed by policies related to replication (Fig. 8, col. 13, lines 57-62).

14. As per dependent claim 6, Federwisch teaches the claimed, the hierarchically-indexed data store comprises a hierarchical structure corresponding to a file system (Fig. 3-4, col. 4, lines 16-20).

15. As per dependent claim 7, Federwisch teaches the claimed, a point-in-time image replication module configured to provide point-in-time image replication services to the heirarchically-indexed data store (Fig. 3-4, col. 8, lines 16-20).

16. As per dependent claims 8, 26-28, Federwisch teaches the claimed, the tracking module is further configured to save information regarding the file regions that have changed since the first point-in-time image replication instance (Fig. 4, col. 10, lines 60-64).

17. As per dependent claims 9-10, Federwisch teaches the claimed, the tracking module comprises a file system driver and installable driver (Fig. 4, col. 10, lines 4-7).

18. As per dependent claims 11, 29, Federwisch teaches the claimed, the point-in-time image replication comprises a snapshot (Fig. 4, col. 10, lines 58-60).

19. As per independent claim 12, Federwisch teaches system and method for generating an asynchronous transfer of data between a source files system and a replicated destination file system (col. 5, lines 60-63) and the changes sent from the source file system to the destination file system relate to a qtree sub-organization of a volume on the source (col. 6, lines 32-34). Further, Federwisch teaches the claimed, a replication target comprising a hierarchically-indexed data store (col. 6, lines 32-34).

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Federwisch teaches the claimed, an update module configured to receive data within file regions changed on a replication source during a previous point-in-time image replication interval (Fig. 3-4, col. 10, lines 60-64). Federwisch teaches the claimed, the update module further configured to write the data within corresponding files regions on the replication target (Fig. 3-4, col. 10, lines 64-66). Federwisch teaches the claimed, the update module further configured to initiate a point-in-time image replication operation configured to synchronize the replication target with the replication source (Fig. 4, col. 4, lines 27-33).

20. As per dependent claim 13, further comprising a tracking module configured to track file regions that have changed on the replication source since a first point-in-time image replication instance, and a replication module configured to communicate data contained within changed file regions in response to a second point-in-time image replication instance (Fig. 2, col. 4, lines 27-33).

21. The dependent claims 20, 23, Federwisch teaches the claimed, the replication module is further configured to communicate data contained within the changed file regions by communicating the data in an order that is independent of a write order (Fig. 12, col. 19, lines 44-48).

22. The computer readable storage medium of claim 25, Federwisch teaches the claimed, invoking point-in-time image replication services (Fig. 5-7, col. 13, lines 26-30).

23. As per independent claims 30, Federwisch teaches system and method for generating an asynchronous transfer of data between a source files system and a replicated destination file system (col. 5, lines 60-63) and the changes sent from the source file system to the destination file system relate to a qtree sub-organization of a volume on the source (col. 6, lines 32-34). Further, Federwisch teaches the claimed, a block index configured to logically identify blocks associated with a selected volume (Fig. 7, col. 12, lines 37-39). Federwisch teaches the claimed, a block address configured to indicate a physical location of a block within a storage device (Fig. 3, col. 8, lines 34-36). Federwisch teaches the claimed, a status indicator configured to indicate whether a change has been made to a block since a previously conducted point-in-time replication operation (Fig. 8-10, col. 23, lines 60-64). Federwisch teaches the claimed, a file index configured to identify a file associated with a selected data block (Fig. 17, col. 24, lines 38-43).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (571) 272-4115. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Sathyanarayan Pannala
Primary Examiner

srp
December 22, 2006